

Title (en)

Coloring composition for microorganisms, filter tool for entrapping bacteria, and kit for measuring the number of bacteria

Title (de)

Farbzusammensetzung für Microorganismen, Filtervorrichtung zum Einfangen von Bakterien, sowie Testsatz zur Bestimmung von Bakterienanzahl

Title (fr)

Composition colorant pour microorganismes, dispositif de filtre pour capter de bactéries, et trousse de mesure du nombre de bactéries

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Application

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Abstract (en)

Provided are a coloring composition and a coloring method for microorganisms, and a method for storing the composition. Using the composition, the number of microorganisms in samples can be measured rapidly and in a simplified manner, and the degree of coloration of the colored microorganisms varies little with the lapse of time. The composition has good storage stability. Also provided is a filter tool for entrapping bacteria, with which only bacteria can be entrapped rapidly and in a simplified manner from samples containing bacteria and animal cells or vegetable cells. The filter tool is utilized in a kit and a method for measuring the number of bacteria in samples. Further provided are a kit and a method for measuring the number of bacteria, which do not require any special equipment and any expert technical knowledge. Using the kit, the number of bacteria in samples can be measured rapidly and in a simplified manner through one-stage filtration. The coloring composition comprises a dye and a surfactant, and is controlled to have a pH of from 4 to 6 or is used in a controlled pH range of from 4 to 6. The composition comprising a dye and a surfactant is stably stored in a pH condition ranging from 4 to 6; or the composition comprising a dye is stored in a pH condition ranging from 4 to 6, and a surfactant is added thereto before use. The filter tool comprises a first filter having a pore size of from 30 to 70 μm and a second filter having a pore size of from 0.45 to 4 μm . The kit comprises the filter tool, of which the second filter is a hydrophobic filter, a dye-containing liquid composition, and a colorimetric means. To measure the number of bacteria in samples, a bacteria-containing sample is introduced into the filter tool in such a manner that the sample is first brought into contact with the first filter, whereby the bacteria are entrapped with the second filter, and the number of bacteria in the sample is determined from the degree of coloration of the second filter. <IMAGE>

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